

COMPONENTIAL FACTORS AS DETERMINANTS OF ACADEMIC RESILIENCE AMONG UNDERGRADUATE STUDENTS OF UNIVERSITY OF IBADAN, IBADAN, NIGERIA

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ABSTRACT

The study investigated openness to experience, self-concept and life satisfaction on academic resilience among undergraduate students to fill the gap from previous researches. The study adopted descriptive survey research design. The population consisted of all undergraduate students in University of Ibadan. The study sample consisted of five hundred (500) students selected from the University through convenience sampling techniques. Four standardised instrument were used such as openness to experience ($r=.91$), self-concept ($r=.87$), life satisfaction ($r=.62$) and academic resilience ($r=.88$) and data were analysed using Pearson Product Moment Correlation and Multiple Regression analysis. The results revealed that there was positive correlation between each of the componential factors on academic resilience like openness to experience ($.802, p<.05$); self-concept ($.591, p<.05$) and life satisfaction ($.491, p<.05$). Also, the joint contribution of the independent variables to the dependent variable was significant and the result yielded a multiple regression (R) of 5.973 , $R^2 = 35.677$ and R^2 (adjusted) = 32.211 . Moreover, openness to experience ($Beta=3.470$; $t=2.271$; $p<.05$) was the only variable that potent relative contribution to academic resilience followed by self-concept ($Beta=1.902$; $t=2.494$; $p<.05$) then followed by life satisfaction ($Beta=0.975$; $t=3.511$; $p>.05$). It is, then, recommended that parents, school psychologists and social workers should provide adequate assistance to the undergraduate students in adapting to higher institution environment to aid their learning outcomes.

Keywords: Openness to experience, Self-concept, Life satisfaction, Academic resilience, Undergraduate students

Introduction

Higher education is an important agent for social, political role, economic and technological development of any country. It provides the skilled manpower needed to transform the resources of a country into wealth. This can be achieved when higher education provides the right quality of training and skills required at the right quantity for their students (Farooq, Chaudhry, Shafiq & Berhanu, 2011). Consequently, the number of students applying to universities in Nigeria has been on the increase due to the fact that people want to be enlightened, socialised and educated. However, just a fraction of these applicants are admitted each year while others who could not make it find themselves in other programmes such as part-time programme, distance learning, sandwich programmes and the like.

University admission in Nigeria is very competitive because of the numerous applicants for limited space in Nigeria universities. It is thus expected that only the best will be admitted since academic merit is a major criteria used to secure admission. Those fortunate in the admission but not able to adapt to stress encountered during the programme will perform low in their varieties course of studies. Indeed, Universal Tertiary Matriculation Examination (UTME) was established to coordinate, evaluate and standardize university admission processes in the country. It is to determine how reliable and competent applicants can adapt to teaching and learning in higher institutions of learning across the Federation. Therefore, each course is given cut-off mark which varies from one university to another. The current practice now includes a now scrapped assessment of candidates by the universities after applicants met the criteria

of UTME before been given provisional admission (Obemeata & Omoregie, 1999).

The influence of resilience is evident by its reach across performance of undergraduate students in Nigeria. Inability of students to adapt to situation surrounding them in their various discipline making their performance in the examination worse than expectation and with this unexpected performance lead to disaster in developing our country. Researchers increasingly view resilience, not as a fixed attribute but as an alterable set of processes that can be fostered and cultivated (Waxman & Huang, 1999, Masten, 2001; Pardon.). The rate students fail is traceable to their inefficient to cope with the situation in the university. With respect to the school setting, scholars often use school achievement or results from state testing as a measure of positive adjustment as learning outcomes (Jew, Green & Kroger, 1999). The essence of resilience in student is described as the ability to bounce back from some form of disruption, stress, or change (Joseph, 1994). According to Richardson (1990) contended that resiliency is the process of coping with disruptive, stressful, or challenging life events in a way that provides the individual with additional protective and coping skills than prior to the disruption that results from the event. Increasingly, researchers have arrived at the consensus that resilience is not some remarkable, innate quality but rather a developmental process that incorporates the normative self-righting tendencies of the individuals (Masten, 2001). Schools are better situated to foster resilience through the use of cooperative learning strategies and opportunities to participate in school governance and service-learning projects (Brooks, 2006).

Resilience research is, especially, applicable to schools because they directly signify achievement gaps that characterise students who grew up under conditions of poverty or social disadvantage (Condly, 2006). As identified by Erikson (1963), trusting relationships serve as the base for healthy future development. Specifically within the school setting, Werner and Smith's study (1992) viewed the role teacher played in creating caring learning environments that are critical in fostering resilience among students in the higher institutions. Coburn and Nelson (1989) found the positive role models in the lives of resilient students were favourite educators who took deep interest in them. Students reported that these educators went beyond the traditional roles of teachers by serving as positive role models and individuals whom they could trust and demonstrate deep care (Brooks, 2006).

In a subsequent study comprising 133 resilient and 81 non-resilient Mexican American high school students, Gonzalez and Padilla (1997) found that resilient students reported significantly higher perceptions of family and peer support, teacher feedback, positive connections to school, value placed on school, and peer belonging. Highly resilient people have adaptive coping skills and perform better in specific task, such as academic ones (Wilks, 2008). Resilience does not imply a low vulnerability to stress, but rather the ability to effectively recover from negative events (Garmezy, 1981). Most often, trait resilience is considered a personality characteristic that moderates the relation between stress and adaptation or health outcome (Ahern, 2006).

Based on the preceding premise, the present study is designed to fill a gap on past research in facilitating academic resilience on componential factors (openness to

experience, self-concept and academic satisfaction) among undergraduate students. Openness to experience is one of the personality factors perceived to influence students' academic resilience in higher institution. The exposure of students from primary school to secondary education then to higher education worth to help any challenges that may be facing students in learning from school premises though environmental factors determine students ability to cope and adapt to learning problems in school. Openness to experience is the tendency of the individual to be imaginative, sensitive, original in thinking, attentive to inner feelings, appreciative of art, intellectually curious, and sensitive to beauty (Costa and McCrae, 1992; John and Srivastava, 1999). Such individuals are willing to entertain new ideas and unconventional values. People possessing this particular traits tend to be highly spatial, imaginative and creative (Howard and Howard, 1995) in their intellect. These people are sensitive to their inner thoughts, have capability to analyse matters differently (Cattell and Mead, 2008). They are curious to know hidden things and to be deductive from different angles (Mount, 2005). Average people are on average scale on this particular trait (Ostendorf, 1992). People who lack the openness to experience tend to be more conventional (Burch and Anderson, 2008) in their problem solving approach and do not try to be explorative in finding new ways to solve a particular problem (Sucier & Goldberg, 1992).

Another variable of interest in this present study is self-concept. Individual plays characteristics significant role in determining how to adapt or adjust to new situation. Learning in higher institutions needs to have good and tangible self-concept in order to be among successful candidate at

the end of the programme. Self-concept is self-perceptions that fundamentally influence behaviour (Shavelson, Hubner, & Stanton, 1976, Rosenberg, 1989). It is an important indicator of educational choice and achievement (e.g., it predicts course selection and success in secondary and post-secondary education (Guay, LaRose, & Boivin, 2004). Moreover, academic self-concept predicts academic achievement and performance beyond prior achievement and interest (Bandura, 1997; Marsh, 2005). Academic self-concept relates to how a person feels about himself or herself within a school or academic setting, or in relation to a student's academic progress (Bracken, 2009). Academic self-concept is hierarchically organised, and multifaceted in nature (Marsh & Shavelson, 1985).

Moreover, life satisfaction is another variable insightful in relation to academic resilience. Satisfaction is a motivation to achieve someone's goals in life. According to Diener, Emmons, Larsen, and Griffin (1985), life satisfaction is a personal judgment about how satisfied an individual is with his/her current life compared to his/her own standard, a standard not imposed by any external sources. Life satisfaction was negatively related to stress. That is, the higher the stress, the lower the life satisfaction (Barnes & Lightsey, 2005). Generally speaking, everyone is motivated to enhance his/her levels of life satisfaction. According to Henderson (2000) individuals with high levels of stress sought more help and supports than individuals with lower levels of stress. Perhaps, individuals under high levels of stress sought help and supports as one means to decrease one's levels of stress in order to increase one's levels of life satisfaction. Life satisfaction appears related to positive characteristics. Coutinho and

Woolery (2004) found that college students who were motivated for intellectual activities (high in need for cognition) reported higher levels of life satisfaction than those who did not. Huffstetler (2006) found that sense of identity was related to overall life satisfaction. Diener and Seligman (2002) also found that life satisfaction was associated with happiness. In general, people's levels of life satisfaction were closely related to their overall physical and mental health (Abdel-Khalek & Naceur, 2007).

Therefore, openness to experience, self-concept and life satisfaction were used in this paper to determine academic resilience among undergraduate students of the University of Ibadan and hence, it showed that componential factors determined academic resilience among undergraduate students.

Statement of the Problem

The challenges faced by undergraduate students of the University of Ibadan no doubt affect their academic performance. The inability to adapt to these challenges caused poor performance. Such challenges include socio-amenities, personality types, students' ability and attitude towards learning, financial constraint, teaching methodologies, school environment and others. The need for academic resilience based on enormous challenges faced by undergraduate students has necessitated students' factors to perform poorly towards career aspiration such as openness to experience, self-concept and life satisfaction. Therefore, there is need for undergraduate students to make appropriate adjustment in respect to academic situation. The ability to do so can make them develop resilience in their disposition despite the peculiarity of the school system.

Objective of the Study

Specially, the objective of this study is to use some componential factors (openness to experience, self-concept and life satisfaction) determine the academic resilience among undergraduate students of the University of Ibadan, Ibadan, Nigeria.

Research Questions

Based on the stated objectives, three research questions were raised and answered. They include:

1. What is the relationship between componential factors (openness to experience, self-concept and life satisfaction) and academic resilience of undergraduate students?
2. To what extent is the composite contribution of componential factors (openness to experience, self-concept and life satisfaction) of academic resilience of undergraduate students?
3. What is the relative contribution of componential factors (openness to experience, self-concept and life satisfaction) to academic resilience of undergraduate students?

Method Design

The study adopted the descriptive survey research design to determine componential factors (openness to experience, self-concept and life satisfaction) on academic resilience among undergraduate students of the University of Ibadan. Respondents were all undergraduate students randomly drawn from the University of Ibadan, Nigeria. Out of all the undergraduates in the University of Ibadan, five hundred students were sampled through convenience and simple sampling techniques. Out of five hundred sampled,

260 (52.0%) were males while 240 (48.0%) were females. The age range of the participants was from 18 to 26 years with a mean age of 24.6 years.

Measures

Four standardised instruments were used to elicit information from the respondents. For measuring openness to experience, the NEO-Big Five Inventory developed by Costa and McCrae (2000) was adopted. This inventory consists five sub-scale of which openness of experience is one of them. It has ten item instrument rated on four Likert rating scale ranging from 4= Strongly Agree (SA) to 1= Strongly Disagree (SD). Example of the items in the scale is: *"I don't like to waste my time daydreaming; once I find the right way to do something I stick to do"*. The internal consistency of this scale was established and found to be .69. The Cronbach Alpha reliability was found to be .91 after administering the instruments in a pilot study for two weeks interval.

Also, the self-concept scale which was developed by Liu & Wang (2005) was utilized to elicit information from respondents. This scale consists of a twenty item instrument rated on four Likert rating scale ranging from 4= Strongly Agree (SA) to 1= Strongly Disagree (SD). Example of the items in the scale was: *If I work hard I can do more in university to pass; I often do my assignment without thinking a lot*. The internal consistency of this scale was established and found to be .76. The test re-test reliability was found to be .87 after administering the instruments in a pilot study for three weeks interval.

In measuring life satisfaction, the life satisfaction questionnaire developed by Pavot&Diener (1993) was used. The

from 4= Strongly Agree (SA) to 1= Strongly Disagree (SD). Example of the items in the scale was: *I am satisfied with my life; So far I have gotten the important things I want in life.* The test re-test reliability was found to be .62 after administering the instruments in a pilot study for three weeks interval.

The academic resilience scale developed by Wagnild and Young (1993) was adapted. This scale consists of a sixteen item instrument rated on four Likert rating scale ranging from 4= Strongly Agree (SA) to 1= Strongly Disagree (SD). Example of the items in the scale is: *when I make plans, I follow through with them; I usually manage one way or another.* The test re-test reliability was found to be .88 after administering the instruments in a pilot study for three weeks interval among higher institution students.

Results

Table 1.1: Descriptive and Inter-correlation among the variables

Variables	Mean	SD	1	2	3	4
Academic resilience	47.874	8.563	1.000			
Openness to experience	28.290	7.562	.802**	1.000		
Self-concept	16.089	4.531	.591**	.482**	1.000	
Life satisfaction	24.620	5.328	.491**	.388**	.190**	1.000

As shown in the table, all the dependent variables were positively correlated with openness to experience (.802, $p < .05$), self-concept (.591, $p < .05$), life satisfaction (.491, $p < .05$) and academic resilience. Also, the

Pearson Product Moment Correlation and Multiple Regression analysis were the major statistical tools employed in analysis data collected from the respondents. Pearson Product Moment Correlation was used to show the relationship existing between each of componential factors on dependent variables while Multiple Regression Analysis was used to determine the joint and relative contribution of componential factors on academic resilience.

The respondents were informed about the study aims, reasons and its confidentiality towards this study. Respondents responded to the questionnaires in different faculties and departments, after introduction and the purpose of the research then the questionnaires were filled by the respondents and returned to the researchers for further analysis.

result indicated that there was inter-correlation between independent variables (openness to experience, self-concept and life satisfaction).

Table 1.2: Multiple Regression Analysis on Componential Factors and Academic Resilience

Resilience						
R= 5.973						
R ² = 35.677						
R ² (adjusted)= 32.211						
Standard error of estimate = 15.8519						
Analysis of variance						
Source	Sum of square (SS)	Df	Mean (MS)	Square	F	Sig.
Regression	2989.890	3	996.63			
Residual	10261.765	496	20.689		48.172	.990
Total	13251.655	499				

The table shows a coefficient of multiple regression (R) of 5.973 and a multiple R square of 35.677 with adjusted R square of 32.211 and standard error estimate of 15.8519. This indicated that 67.7% of the variance in the academic resilience is accounted for by all three determinant variables when merged together. The table

shows that the analysis of variance for the regression yielded an F-ratio of 48.172 (significant at 0.05 level). This implies that the joint contribution of the independent variables to the dependent variable was significant and the other variables not included in this model may have accounted for the remaining variance of 32.3%.

Table 1.3: Multiple Regression showing relative contribution of Componential Factors on Academic Resilience of undergraduate students

Model	Unstandardized Coefficients		Standardized coefficients		t	Sig.
	B	Std. error	Beta			
(constant)	58.736	15.870			3.701	.003
Openness to experience	5.741	2.110	3.470		2.721	.008
Self-concept	5.017	2.012	1.902		2.494	.013
Life satisfaction	3.967	1.130	0.975		3.511	.004

Using the standardised regression coefficient to determine the relative contributions of the independent variables to the explanation of dependent variable, openness to experience (B= 5.741, t=2.721, p<0.05) is the most componential factor in the study that potentially contributes to the prediction of academic resilience among undergraduate

students, followed by self-concept (B=5.017, t=2.494, p<0.05) and then life satisfaction (B=3.967, t=3.511, p>0.05).

Implication of the study

This study investigated the componential factors on academic resilience among undergraduate students of the University of

Ibadan. Hence, the result of the study provides practical implications for the students, lecturers, school management, parents, guardians, government and the society at large. Lack of academic resilience among undergraduate students is tasked to understand through their academic performance on such basis. Students should embark on significant activities that would help them to improve academic performance and maximise their potential. Also, school management and lecturers should create cordial interaction for students to determine their psychological and psycho-social problems and necessary solution should be provided; even referral method to counselling psychologists and social welfare will be preferable.

Discussion

The findings show that openness to experience, self-concept and life satisfaction were positively correlated to academic resilience among undergraduate students. Therefore, the present study shows that openness to experience is significantly correlated with academic resilience. The openness to experience of undergraduate students from primary to higher education determines how some of the students adapt or cope with the situation of the university environment. Their exposures to different challenges in academic line make them adapt to new school stress and able to adjust to teaching and learning in higher institution so that at the end of the programme, students will be able to perform better and have a good grade. This is in line with other research findings like Fayombo (2010) who found that there was significant positive relationship between psychological traits (conscientiousness, agreeableness, extraversion, openness to experience) and psychological resilience.

Another finding supports that there is a significant positive correlation between openness to experience and academic resilience (Makaya, Oshio & Kaneko 2006). Also, self-concept of students show an important role in fostering academic resilience and from the findings; students' characteristics, fact and ability determine how to adapt to school environment, situations and academic resilience. The interest of students in schooling determine how they face any challenges that might occur in school since higher education is a very crucial level of education in Nigeria in securing a lucrative job and otherwise associate with other people around the world. Otherwise, there is positive relationship between self-concept and academic resilience among undergraduate students. This shows that self-concept of students determine their ability to cope with problems as students. This present finding is in agreement with (Craven & Yeung, 2008) that academic self-concept was positively correlated with academic resilience.

Also, life satisfaction was positively correlated with academic resilience among undergraduate students. The perception of life to be satisfied is the major factor of human being. Life satisfaction denotes an overall evaluation of life. So the appraisal that life is good does not necessarily mean that it is satisfying. Previous studies on the relationships between resilience and life satisfaction show that change in resilience over time predicted change in life satisfaction (Cohn, 2009). Academic resilience acts, not only as a psychological problem among students, but also mediates the relationship between positive emotions and life satisfaction of students. Also, in a longitudinal study on Norwegian medical students, (Kjeldstadli, 2006) it was found that not only resilience but also perceived

stress differentiate those with high levels of life satisfaction from students with low or fluctuating levels of life satisfaction.

The finding also indicated that openness to experience, self-concept and life satisfaction when pulled together jointly accounted for 67.7% (R Square = 32.211) of the variance being explained in academic resilience and this was found to be significant ($F(3, 496) = 48.172, p < .05$). This is an evident that the model which emerged is fit and it has the ability of predicting academic resilience among undergraduate students. This is in support with (Brunner, Lüdtke, & Trautwein, 2008; Brunner, 2010; Donald, Lazarus & Lolwana, 2002; Wilks, 2008) that there was significant joint contribution of openness to experience, self-concept and life satisfaction on academic resilience among undergraduate students.

Of special interest to this present finding is that openness to experience, self-concept and life satisfaction relatively predicted academic resilience. This finding is amazing since openness to experience shows a most potential significant in prediction of academic resilience among University of Ibadan undergraduates. This is in line with the submission of (Hettema, Neale, Myers, Prescott, & Kendler, 2006) that openness to experience is a risky factor that predicts academic resilience. Kendler, (2006) further claimed that personality traits of students determine the ability of students to cope with situation in their various environment.

A probable explanation for this may be due to the fact that openness to experience has traits that contribute to their self-concept and which motivate their life satisfaction to adapt to academic resilience. It was found out that students focus on the external world around them and are likely to

be less concerned with internal, inherent capability that will engender academic resilience which also calls for endurance on the part of the individual. Therefore, each variables used in this research have a good relative impact in determining academic resilience among undergraduate students.

Conclusion

This study had indicated that openness to experience, self-concept and life satisfaction are important factors in determining academic resilience among undergraduate students. The variables that emerged from the study also provided insight into the ways that healthy personalities can promote students' wellbeing in their academic welfare.

Recommendations

The findings of this study are critical as they illuminate students understanding of the consequences of learning in higher institution and some challenges that they may encounter in the university situation and ways of coping. It encourages them to imbibe the habit of studying their environment in relation to academic interest and career choice. Moreover, effective study habit would help students' retention, abilities and attitude towards developing necessary knowledge and information on course of study. Also, parents will be able to give adequate and moral support to their children learning in the higher institution so that good grade can be achieved at the end of the programme. Parents should help their children through follow up after securing admission in their favourite institutions. In the area of specialisation, counselling psychologists also will be able to explore resilience problem among students and provide appropriate solution to adjusting to the problem. Also, social workers will aid students in understanding of their learning environment, behaviours towards learning

outcomes and helping them achieve more academically.

REFERENCES

- Abdel-Khalek, A. M., and Naceur, F. (2007). Religiosity and its association with positive and negative emotions among college students from Algeria. *Mental Health, Religion, and Culture*, 10, 159-170.
- Ahern, N. R., Kiehl, E. M., Sole, M. L., and Byers, J. (2006). A review of instruments measuring resilience. *Issues in Comprehensive Pediatric Nursing*, 29, 103-125.
- Angleitner, A., and Ostendorf, E. (1991). Temperament and the Big Five factors of personality Paper presented at the conference on the Developing Structure of Temperament and Personality in Child-hood, Netherlands Institute for Advanced Study in the Humanities and Social Sciences, Wassenaar, The Netherlands.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Barnes, P. W., and Lightsey, O. R. (2005). Perceived racist discrimination, coping, stress, and life satisfaction. *Journal of Multicultural Counseling and Development*, 33, 48-61.
- Brooks, J. (2006). *Strengthening resilience in children and youth: Maximizing opportunities through the school children and Schools*, 23, 2, 69-76.
- Brunner, M., Keller, U., Dierendonck, C., Reichert, M., Ugen, S., Fischbach, A., and Martin, R. (2010). The structure of academic self-concept revisited: The nested Marsh/Shavelson model. *Journal of Educational Psychology*, 102, 964-981.
- Brunner, M., Lüdtke, O., and Trautwein, U. (2008). The internal/external frame of reference model revisited: Incorporating general cognitive ability and general academic self-concept. *Multivariate Behavioral Research*, 43, 137-172.
- Burch, G. St. J., and Anderson, N. (2008). *Personality as a predictor of work-related behaviour and performance: Recent advances and directions for future research* in G. P. Hodgkinson and J. K. Ford (Eds.), *International review of industrial and organizational psychology* (Vol. 23, 261-305). Chichester, England: Wiley.
- Cattell HEP, Alan DM (2008). *The Sage Handbook of Personality Theory Assessment*, pp. 135-159
- Cattell, H. E. P., and Mead, A. D. (2008). The sixteen personality factor questionnaire (16PF) in G. J. Boyle, G. Matthews, and D. H. Saklofske (Eds.), *The SAGE handbook of personality theory and assessment: Vol. 2. Personality measurement and testing* (135-159). Thousand Oaks, CA: Sage.
- Coburn, J. and Nelson, S. (1989). *Teachers do make a difference: What Indian graduates say about their school experience?* Portland, OR: Northwest Regional Educational Laboratory.
- Condly, S. J. (2006). *Resilience in children: A review of literature with implications*

- for educators. *Urban Education*, 41, 211-236.
- Costa PT, McCrae RR (1992) Manual for the Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI).
- Costa PT, McCrae RR (2000). The NEO-PI-R Personality Inventory Manual. Odessa, FL: *Psychological Assessment Resources*
- Costa, P.T., and McCrae, R.R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) manual. Odessa, FL: *Psychological Assessment Resources*
- Coutinho, S. A., and Woolery, L. M. (2004). The need for cognition and life satisfaction among college students. *College Student Journal*, 38, 203-206.
- Diener, E., Emmons, R. A., Larsen, R. J., and Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75.
- Donald D, Lazarus S and Lolwana P (2002). Educational Psychology in Social Context. Cape Town: 213 Learners with learning difficulties Oxford University Press.
- Erikson, E. (1963). *Childhood and Society*. New York, NY: W.W. Norton.
- Farooq, M. S., Chaudhry, A. H., Shafiq, M. and Berhanu, G. (2011). Factors Affecting Students' Quality of Academic Performance: A Case of Secondary School Level. *Journal of Quality and Technology Management*. 7(2), 1-14.
- Fayombo, G.A. (2010). The Relationship between Personality Traits and Psychological Resilience among the Caribbean Adolescents, *International Journal of Psychological Studies*, 2 (2), 105-116.
- Garmezy, N. and Rutter, M. (1983). *Stress, Coping, and Development in Children*. New York: McGraw-Hill.
- Garmezy, N. (1993). *Children in poverty: Resilience despite risk*. *Psychiatry*, 56, 127-136.
- Goldberg LR (1992). The development of markers for Big Five Factor Structure. *Psychological Assessment*, 4 (1): 26-42.
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist*, 48, 26-34.
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., and Gough, H. C. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality*, 40, 84-96.
- Goldberg, L.R. (1982). *From Ace to Zombie: Some explorations in the language of personality*. In C.D.
- Gonzalez, R. and Padilla, A. M. (1997). The academic resilience of Mexican American high school students. *Hispanic Journal of Behavioural Sciences*, 19 (3), 301-317.
- Guay, F., Marsh, H. W., and Boivin, M. (2004). Academic self-concept and academic achievement: Developmental perspectives on their causal

Journal of Educational Psychology, in press.

Hettema, J. M., Neale, M. C., Myers, J. M., Prescott, C. A., and Kendler, K. S. (2006). A population-based twin study of the relationship between openness to experience and internalizing disorders. *American Journal of Psychiatry*, 163(5), 857-864.

Howard, P.J. and Howard, J. M. (1995). *The Big Five quickstart: An introduction to the Five-Factor Model of Personality for human resource professionals*. Charlotte, NC: Centre for Applied Cognitive Studies.

Jew, C.L., Green, K.E., and Kroger, J. (1999). Development and validation of a measure of resiliency. *Measurement and Evaluation in Counselling and Development*, 32, 75-89.

John, O. P., and Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives, in L. A. Pervin and O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102-138). New York: Guilford Press.

Joseph, J. (1994). *The Resilient Child*. New York, NY: Insight Books.

Kjeldstadli, K., Tyssen, R., Finset, A., Hem, E., Gude, T., Gronvold, N., et al. (2006). Life satisfaction and resilience in medical school - a six-year longitudinal, nationwide and comparative study. *BMC Medical education*, 6-48.

Makaya, M., Oshio, A., and Kaneko, H. (2006). Correlations for adolescent resilience scale with big five

personality traits. *Psychological Reports*, 98(3), 927-930.

Marsh, H. W., and Craven, R. G. (2006). Reciprocal effects of self-concept and performance from a multidimensional perspective: Beyond seductive pleasure and unidimensional perspective. *Perspectives on Psychological Science*, 1, 133-163.

Masten, A.S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227-238

McCrae, R. R. (1996). Social consequences of experiential openness. *Psychological Bulletin*, 120, 323-337.

Mlambo, V. (2011). An Analysis of Some Factors Affecting Student Academic Performance in an Introductory Biochemistry Course at the University of the West Indies Caribbean Teaching Scholar. 1 (2), 79-92.

Mount, M. K., and Barrick, M. R. (1995). The Big-Five personality dimensions: Implications for research and practice in human resources management. *Research in Personnel and Human Resources Management*, 13, 153-200.

Nakaya M, Oshio A, Kaneko H. (2006)-. Correlations for Adolescent Resilience Scale with big five personality traits, *Psychological reports*. 98(3), 927-30.

Padrón, Y. N., Waxman, H. C., and Huang, S. L. (1999). Classroom behaviour and learning environment differences between resilient and non-resilient elementary school students. *Journal of Education for Student Placed At Risk*, 4 (1), 63-81.

- Pavot, W. G., and Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment*, 5, 164-172.
- Richardson, G.E., Neiger, B.L., Jensen, S., and Kumpfer, K.L. (1990). The resiliency model. *Health Education*, 21(6), 33-39.
- Rosenberg, M. (1989). *Society and the adolescent self-image*. Middletown CT: Wesleyan University Press
- Saucier, G., and Goldberg, L.R. (1998). What is beyond the Big Five? *Journal of Personality*, 66, 495-524.
- Shavelson, R. J., Hubner, J. J., and Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research*, 46, 407 ± 441.
- Werner, E. E., and Smith R. S. (1992). *Overcoming the odds: high risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Wilks, S. (2008). Resilience amid academic stress: The moderating impact of social support among social work students. *Advances in Social Work*, 9, 106-125.